

Dickinson County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/11/2018

Using the most recent IMPLAN data available (2016) adjusted for 2018, 21 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Dickinson County economy.¹

These 21 sectors have a total direct output of approximately **\$667.7 million** and support **2,210 jobs** in Dickinson County. Running the model for all 21 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Dickinson County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	2209.8	21.95%	\$151,363,585	22.68%	\$667,713,760	100.04%
Indirect Effect	665.0	6.61%	\$46,082,092	6.90%	\$91,602,129	13.72%
Induced Effect	281.7	2.80%	\$18,987,734	2.84%	\$35,248,327	5.28%
Total Effect	3156.4	31.35%	\$216,433,411	32.43%	\$794,564,216	119.04%

As shown in the above table, agriculture, food, and food processing sectors support **3,156 jobs**, or **31.35%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$794.6 million**, roughly **119.04% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 21 agriculture, food, and food processing sectors is approximately **\$216.4 million**, or **32.43% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **32.43% of the total economy**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

1 Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

2 Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

3 Value added = labor income + indirect business taxes + other property type income.

4 GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

5 Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **752 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Dickinson County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	752.2	\$82,275,700
Confectionery manufacturing from purchased chocolate	724.0	\$253,944,579
Farm machinery and equipment manufacturing	240.4	\$117,328,824
Support activities for agriculture and forestry	147.5	\$6,196,939
Wholesale trade	142.8	\$28,700,302
Grain farming	125.4	\$42,675,542
All other crop farming	74.6	\$5,228,263
Truck transportation	69.7	\$11,071,781
Veterinary services	51.1	\$5,697,385
Other animal food manufacturing	50.0	\$66,088,715

The confectionery manufacturing from purchased chocolate sector directly contributes approximately **\$253.9 million** to the Dickinson County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Confectionery manufacturing from purchased chocolate	724.0	\$253,944,579
Farm machinery and equipment manufacturing	240.4	\$117,328,824
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	752.2	\$82,275,700
Other animal food manufacturing	50.0	\$66,088,715
Flour milling	34.7	\$47,661,176
Grain farming	125.4	\$42,675,542
Wholesale trade	142.8	\$28,700,302
Oilseed farming	29.0	\$27,753,479
Truck transportation	69.7	\$11,071,781
Dairy cattle and milk production	31.0	\$11,042,889

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Dickinson County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	29.0	\$27,753,479.47
Grain farming	125.4	\$42,675,541.63
Vegetable and melon farming	0.2	\$30,671.15
Fruit farming	1.2	\$92,236.27
Tree nut farming	0.5	\$73,304.01
Greenhouse, nursery, and floriculture production	0.0	\$5,578.24
All other crop farming	74.6	\$5,228,262.51
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	752.2	\$82,275,699.61
Dairy cattle and milk production	31.0	\$11,042,889.15
Poultry and egg production	0.2	\$111,106.55
Animal production, except cattle and poultry and eggs	30.9	\$3,523,792.91
Commercial logging	1.7	\$74,423.85
Commercial hunting and trapping	3.4	\$69,603.48
Other animal food manufacturing	50.0	\$66,088,715.48
Flour milling	34.7	\$47,661,175.88
Confectionery manufacturing from purchased chocolate	724.0	\$253,944,579.22
Bread and bakery product, except frozen, manufacturing	14.7	\$1,648,599.25
Frozen cakes and other pastries manufacturing	0.9	\$140,003.83
Farm machinery and equipment manufacturing	240.4	\$117,328,824.35
Veterinary services	51.1	\$5,697,385.11
Landscape and horticultural services	43.6	\$2,247,887.91

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Dickinson County, the retail sector was omitted.